

TS8102124R0A

Technical Specifications of 900V PV/3- Input, 25A, IP65 Pump Controller

(Suitable for Poly or Mono-crystalline PV panels)

The pump controller is a subset of MECWIN® customised InverStar® V3 Series High Performance Permanent Magnet Synchronous Motor (PMSM) drive. With proper selection of array voltage/current, the pump controller can be used for 12.5HP nominal pump rating with Mono-Crystalline Solar Photovoltaic (PV) panel array.

Parameter	Specification
Solar Pump Controller Model	V90AC025M881
Power Input	Solar PV panels or 3 Phase 415V, 50/60Hz grid supply
Suggested PV Panel Configuration (VOC should not be more than absolute maximum DC Bus voltage)	2 Strings of 11 x 515-550Wp
Max. Output Current rating	25A
Overload	150% for one minute
Maximum Three Phase Output Voltage	415V
Applicable Pump ratings	9.375KW/12.5HP
Suggested Motor Voltage (Output voltage can be set from 300-500V)	350V
Nominal AC Output Power	11250W @ 0.8 Power Factor
Output Frequency	Variable from 0-300Hz
Control Type	V/F Control for Induction Motor and Sensorless Vector Control for Permanent Magnet Synchronous Motor
Maximum Input Voltage	900V (in all conditions or VOC)
MPPT Voltage range	350-700V
Maximum PV array short circuit current	30A (Isc)
Power Input	12500W
Max. Input Solar power	14000Wp
MPPT Efficiency	more than 98%
Weight Without Packing	TBD
Weight With Packing	TBD
PV input Surge Protection	40kA, 585V DC PV T2 SPD as per EN 50539-11 2013
PV input MCB	40A, 1000VDC four pole MCB
Grid input MCB	40A, 3 Pole, 3 Phase MCB
Grid input Surge Protection	40kA, 320VAC LN, T2 SPD as per IEC61643-11 2012
Protections	Output Short/open Circuit, Over Temperature, Over/Under Voltage, Thermal Overload, Dry Run, Unbalance in the output, Reverse Polarity
Parameter updation	POTA (Parameter over the air) is available subject to availability of the communication network.
Protection Level	IP67

For More Information, Contact Mecwin :

Tel : +91 97412 29797

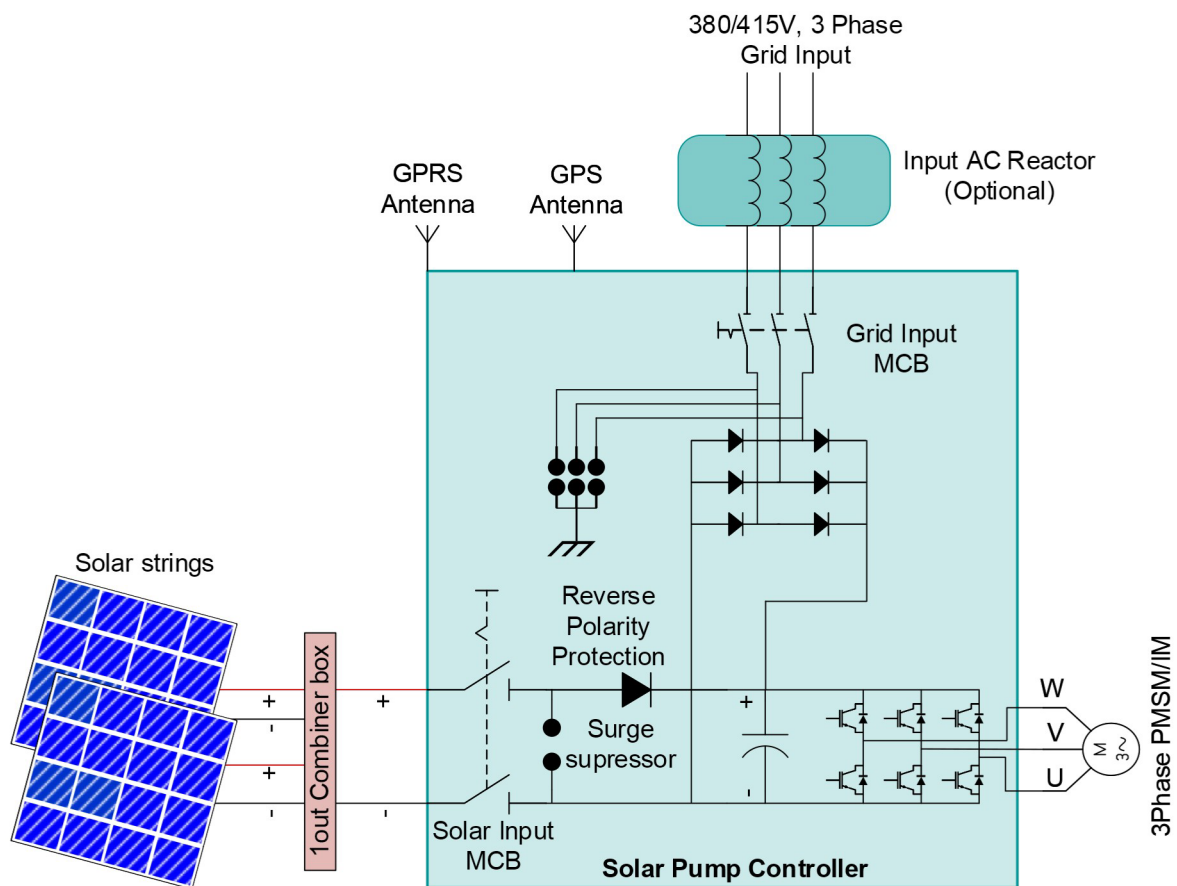
Email : csr@mecwinindia.com

Protection level	IP67
Motor types which can be used	PMSM (Permanent Magnet Synchronous Motor) and Induction Motor
Operating Ambient Temperature	-10° to +45°C with relative humidity of maximum 90% RH (Non Condensing)
Cooling	Forced air cooling using IP67 Fans
Maximum Altitude and Audible noise	1000m from Sea level and less than 40dB
Remote Monitoring Unit Options	Controller with MNRE specification compliant 4G fallback to 2G Remote Monitoring Unit, GPS, 2 line LCD display, 4 keys and input Surge Protection Device (SIM and data charges are not included)

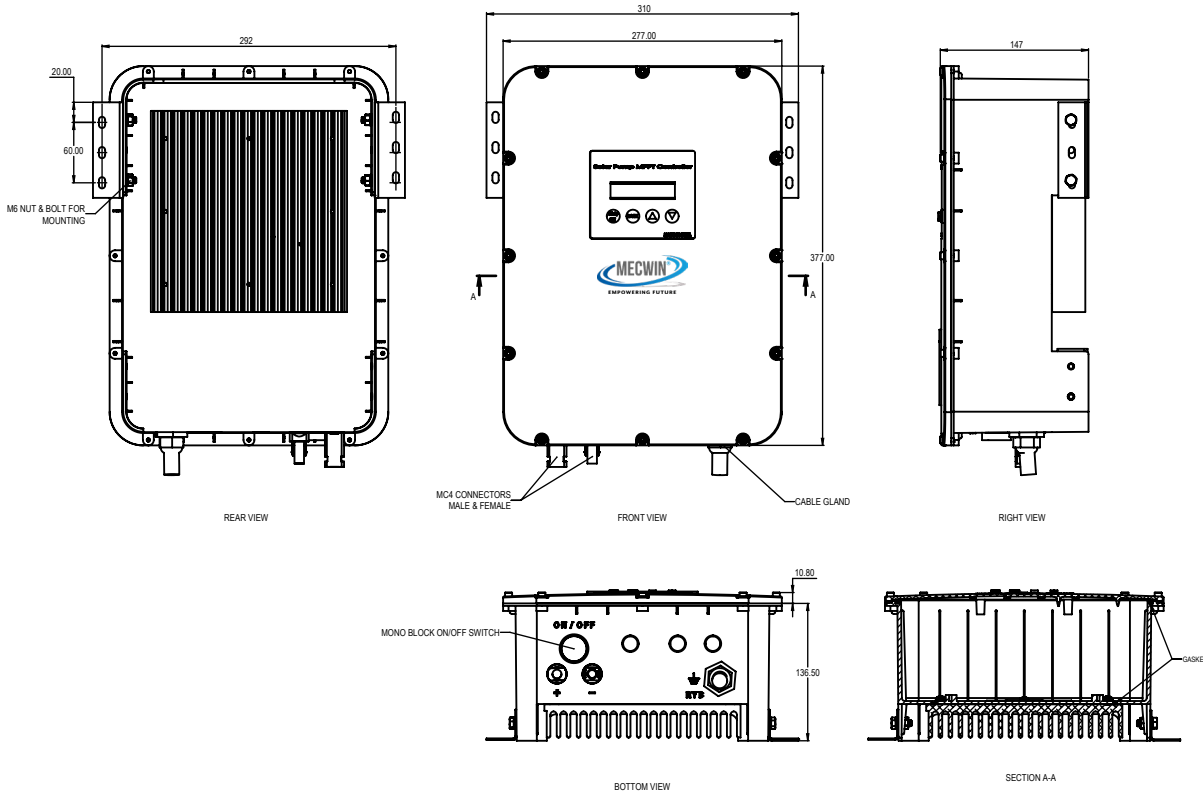
Notes :

- Selection of Drive module should be based on current rating.
- The Current rating should be equal or more than the Motor current rating.
- The details like Power, kVA etc. are indicative only.

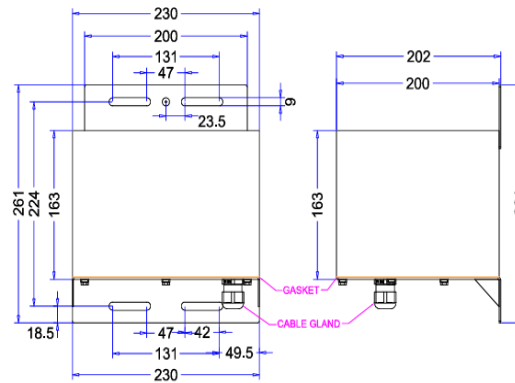
SINGLE LINE DIAGRAM



Mechanical Dimension :



AC Reactor Dimension :



Orderable Parts :

Part Number	Description	Dimension
V90PV042x881	900V PV/3- ϕ Input, 25A, IP65 Dual input Pump controller with MNRE specification compliant 4G fallback to 2G Remote Monitoring Unit, GPS, 2 line LCD display, 4 keys and input Surge Protection Device (SIM and data charges are not included)	300 (Width)×620 (Height)×228.50 (Depth)
881-ACREACTOR	AC Reactor assembled inside IP65 enclosure suitable for 900V PV/3- ϕ input, 25A dual input Pump Controller	230 (Width)×261 (Height)×202 (Depth)

Note: "x" in the part number may be either M or F or R or S during supply.

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